

National Climate Change and Wildlife Science Center and DOI's Climate Science Centers Data Sharing Policy

This document outlines the National Climate Change and Wildlife Science Center (NCCWSC) and DOI's Climate Science Centers (CSCs) policy regarding the sharing of data by collaborators funded partially or entirely by the NCCWSC and/or the CSCs. The objective of this policy is to ensure and facilitate full and open access to scientific data and data products. This policy is to be considered a binding condition for all NCCWSC/CSC-supported projects.

As used in this document, the term "data" refers to raw data, processed data, published data, field notes, observations and supporting documents. It includes data generated by experiments, models, simulations and by observations at specific times and locations as well as any custom code or applications that were developed to aid in data analysis or transformation and are necessary to understand the data. Code and applications must include adequate documentation and/or within code comments to understand the function.

The NCCWSC/CSCs are committed to the establishment, maintenance, validation, description, distribution, and long-term availability of data. Therefore:

1. Compliance with this data sharing policy is required. Exceptions to this policy sought by the PI must be fully documented and agreed to by the PI(s) and approved by the appropriate NCCWSC or CSC director prior to the funding of the project.
2. Project proposals submitted to the NCCWSC and the CSCs for funding must include a written data management plan consistent with the NCCWSC/CSC Data Management Policy and Guidance (forthcoming) which defines the structure of the project data management plan and requirements for addressing all aspects of the data life cycle.

A project's data management plan must accompany the project proposal and include the following:

- a. Describe how new data will be collected or existing data will be leveraged or reused;
- b. Identify data with any limitations on access or reuse (e.g., sensitive data, proprietary sources, restricted data, specific software required to read or extract project data);
- c. Articulate quality assurance and quality control procedures;
- d. Agree to provide metadata for all data sets and data products to the currently supported FGDC standard;
- e. Identify anticipated data types and their formats; and
- f. Specify how data will be transferred to NCCWSC/CSC custody or a third-party repository. If a PI chooses to make their data available through a third party, they are still obligated to provide the NCCWSC/CSC with all raw data, processed data, field notes, observations, and metadata.

3. PI(s) are expected to share the data, data products, samples, physical collections, and other supporting materials created or gathered in the course of work funded by NCCWSC/CSC.
 - a. Expected project products must be defined in the project proposal.
 - b. If release of the samples or physical collections poses a significant burden or would not be useful to other researchers, this limitation must be described in the project proposal.
 - c. Data deemed sensitive or privileged must be identified and appropriately labeled by the PI(s) upon transfer to the relevant NCCWSC/CSC. Policies for access to these data must be negotiated between the PI(s) and the NCCWSC/CSC when the proposal is accepted for funding.
 - d. Investigators making use of proprietary data or restricted project data from partners must make clear in their proposal what information, data, and conclusions can and cannot be released to the public upon conclusion of the project or whether there are defined sunset times involved.
 - e. This policy does not supersede the legal requirements imposed upon organizations to restrict public access to data. However, such legal requirements restricting access must be clearly stated in the project proposal and scopes of work. Information access restrictions will be taken into account during the proposal review and ranking process.
 - f. The NCCWSC/CSCs will not release data in violation of court decisions or that are part of ongoing court cases.
4. Release of data and associated products at the conclusion of the project into the public domain is the de facto policy; requests to limit or delay public access to products must be negotiated with NCCWSC or CSC director and documented in writing, prior to beginning the project. Requests to delay public access cannot extend past two years from the conclusion of the project. Conclusion of the project is defined as the date upon which final deliverables are due for submission to the NCCWSC/CSC as stated in the project proposal.
5. For projects making long-term observations or monitoring, data collected in a calendar year must be made public within 90 days from the end of the calendar year unless an exception is negotiated between the PI(s) and the NCCWSC/CSC director and documented in writing when the proposal is accepted for funding.
6. PI(s) shall be responsible for the quality, completeness, and description of the data, metadata, and associated products. After the data and metadata are deposited with the relevant NCCWSC/CSC, the NCCWSC/CSC assumes responsibility for the archiving, persistence of, and access to, the data, metadata, and ancillary holdings. If it is appropriate for data to be preserved in a repository other than the CSC, the maintenance approach must be defined in the proposal and must be approved by the NCCWSC/CSC director.

7. Robust metadata that fully and accurately describes the dataset and ensures its fitness for use are required when data are deposited with the NCCWSC/CSC. Appropriate standards and format will be identified by the NCCWSC/CSC enterprise. If research reuses or leverages an existing data set, the metadata for research projects must cite the source data reference and link to the data.
8. PI(s) are responsible for depositing appropriate samples and physical collections associated with their research in an established and recognized repository within their discipline.
9. PI(s) are required to preserve and transfer their data and data products to the NCCWSC/CSC in commonly accepted standards needed for long-term climate science research.
10. The NCCWSC/CSCs strongly encourage use of open standards and widely-recognized formats such as delimited plain-text for tabular data, JPEGs for images, and Acrobat PDFs for scanned documents. A complete listing of approved formats by data type can be found in the NCCWSC/CSC Data Management Policy and Guidance (forthcoming).
11. Data that rely on licensed software for access, evaluation, and use must be identified in the project proposal, and proprietary formats and software must be documented in the metadata. Such data must be extracted from the proprietary software and submitted in a non-proprietary, delimited, "plain-text" format with documentation of character-encoding.
12. Data must be cited and referenced in publications and other media using a bibliographic reference similar to that used for journal articles in a format identified by the NCCWSC/CSC Data Management Policy and Guidance (forthcoming).
13. University researchers and researchers from non-governmental organizations will retain principal legal rights to intellectual property developed under NCCWSC/CSC research activities in accordance with their funding agreements.